

Claims

- [c1] A mirror assembly for a motor vehicle, comprising:
a reflective element assembly comprising a reflective surface for providing a reflection image, and a reflective surface mounting panel for mounting the reflective surface thereto;
a mounting frame for mounting the reflective element assembly to the motor vehicle; and
an interlocking fastener assembly for removably attaching a first one of the reflective element assembly to the mounting frame, comprising a first array of interlocking fasteners attached to the mounting frame and a second array of interlocking fasteners attached to the first one of the reflective element assembly and configured to interlock with the first array.
- [c2] The mirror system according to claim 1, wherein the mounting panel comprises a lightweight material.
- [c3] The mirror system according to claim 2, wherein the lightweight material comprises a synthetic resin.
- [c4] The mirror system according to claim 2, wherein the lightweight material comprises a thermoplastic.

- [c5] The mirror system according to claim 2, wherein the lightweight material comprises a gas-injected plastic having a plurality of microscopic voids distributed throughout.
- [c6] The mirror system according to claim 2, wherein the reflective surface comprises a polymeric reflective film conformably attached to the mounting panel to provide a reflection image therein, wherein the reflection image is essentially free of visible distortion.
- [c7] The mirror system according to claim 5, wherein the reflective surface comprises a polymeric reflective film conformably attached to the mounting panel to provide a reflection image therein, wherein the reflection image is essentially free of visible distortion.
- [c8] The mirror system according to claim 1, wherein the mounting frame further comprises a tilt actuator for selectively vertically and horizontally tilting the reflective element assembly in order to adjust a rearward field of vision provided thereby.
- [c9] The mirror system according to claim 8, wherein the tilt actuator further comprises a mounting plate pivotally attached thereto.

- [c10] The mirror system according to claim 9, wherein the first array is attached to the mounting plate.
- [c11] The mirror system according to claim 9, and further comprising a base plate attached to the mounting plate, wherein the first array is attached to the base plate.
- [c12] The mirror system according to claim 1, wherein the second array is attached to the mounting panel.
- [c13] The mirror system according to claim 1, and further comprising a mirror plate attached to the mounting panel, wherein the second array is attached to the mirror plate.
- [c14] The mirror system according to claim 8, wherein the second array is attached to the mounting panel.
- [c15] The mirror system according to claim 8, and further comprising a mirror plate attached to the mounting panel, wherein the second array is attached to the mirror plate.
- [c16] The mirror system according to claim 1 wherein the first array and the second array are attachable and detachable without the use of separate fasteners.
- [c17] The mirror system according to claim 1 wherein the first one of the reflective element assembly is attached to the

tilt actuator by pressing the first array and the second array together, and the first one of the reflective element assembly can be separated from the tilt actuator for replacement by a second one of the reflective element assembly by pulling the first array and the second array apart.

[c18] The mirror system according to claim 1 wherein at least one of the first array and the second array comprises a regularly-spaced plurality of fastening elements, each fastening element comprising an elongated cylindrical shaft terminating in an expanded, mushroom-shaped head.

[c19] A motor vehicle comprising at least one mirror system for providing a rearward view to the operator of the motor vehicle, the mirror system comprising:
a reflective element assembly comprising a reflective surface for providing a reflection image, and a mounting panel for mounting the reflective surface thereto;
a mounting frame for mounting the reflective element assembly to the motor vehicle; and
an interlocking fastener assembly for removably attaching a first one of the reflective element assembly to the mounting frame, comprising a first array of interlocking fasteners attached to the mounting frame and a second array of interlocking fasteners attached to the first one

of the reflective element assembly and adapted for interlocking communication with the first array.

- [c20] The motor vehicle according to claim 19 wherein the mounting panel comprises a lightweight material.
- [c21] The motor vehicle according to claim 20 wherein the lightweight material comprises a synthetic resin.
- [c22] The motor vehicle according to claim 20 wherein the lightweight material comprises a thermoplastic.
- [c23] The motor vehicle according to claim 20 wherein the lightweight material comprises a gas-injected plastic having a plurality of microscopic voids distributed throughout.
- [c24] The motor vehicle according to claim 20 wherein the reflective surface comprises a polymeric reflective film conformably attached to the mounting panel to provide a reflection image therein, wherein the reflection image is essentially free of visible distortion.
- [c25] The motor vehicle according to claim 23 wherein the reflective surface comprises a polymeric reflective film conformably attached to the mounting panel to provide a reflection image therein, wherein the reflection image is essentially free of visible distortion.

- [c26] The motor vehicle according to claim 19 wherein the mounting frame further comprises a tilt actuator for selectively vertically and horizontally tilting the reflective element assembly in order to adjust a rearward field of vision provided thereby.
- [c27] The motor vehicle according to claim 26, wherein the tilt actuator further comprises a mounting plate pivotally attached thereto.
- [c28] The motor vehicle according to claim 27, wherein the first array is attached to the mounting plate.
- [c29] The motor vehicle according to claim 27, and further comprising a base plate attached to the mounting plate, wherein the first array is attached to the base plate.
- [c30] The motor vehicle according to claim 19, wherein the second array is attached to the mounting panel.
- [c31] The motor vehicle according to claim 19, and further comprising a mirror plate attached to the mounting panel, wherein the second array is attached to the mirror plate.
- [c32] The motor vehicle according to claim 26, wherein the second array is attached to the mounting panel.

- [c33] The motor vehicle according to claim 26, and further comprising a mirror plate attached to the mounting panel, wherein the second array is attached to the mirror plate.
- [c34] The motor vehicle according to claim 19 wherein the first array and the second array are attachable and detachable without the use of separate fasteners.
- [c35] The motor vehicle according to claim 19 wherein the first one of the reflective element assembly is attached to the tilt actuator by pressing the first array and the second array together, and the first one of the reflective element assembly can be separated from the tilt actuator for replacement by a second one of the reflective element assembly by pulling the first array and the second array apart.
- [c36] The motor vehicle according to claim 19 wherein at least one of the first array and the second array comprises a regularly-spaced plurality of fastening elements, each fastening element comprising an elongated cylindrical shaft terminating in an expanded, mushroom-shaped head.